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09/982,301	10/17/2001	Anders Vinberg	28280.04000	8005

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EXAMINER	
PATEL, ASHOKKUMAR B	
ART UNIT	**PAPER NUMBER**
2154	

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/982,301	VINBERG, ANDERS	
	Examiner	Art Unit	
	Ashok B. Patel	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 12 May 2005.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-23 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-23 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-22 are subject to examination. Claims 3 and 12 are cancelled.

Response to Arguments

2. Applicant's arguments filed 05/12/2005 have been fully considered but they are not persuasive for the following reasons:

Applicant's argument:

"Accordingly, as understood by Applicant, Schettler et al., fails to teach or suggest "receiving input associated with a level of abstraction" and "determining the level of abstraction based on the input" as recited in claim I of the present application."

Examiner's response:

Schettler teaches in col. 19-42," A root submap 202 is defined at a root level. The root submap 202 represents the highest logical level submap in the hierarchy and shows objects 203 acting as anchor points for different submap hierarchies. Each hierarchy is a separate management domain. This could be, for instance, a network, logical grouping of nodes, or some other domain. An internet submap 204 is defined at an internet level and is generated by "exploding" an object 203 within the root submap 202. "Exploding" in the context of this document means that the user prompts the management station 100 with the input device 106 to break down and provide more data pertaining to the object 203 at issue. Further, the internet submap 204 illustrates objects 203 in the form of networks and routers. Any one of a number of network submaps 206 can be exploded from the internet submap 204. Each network submap 206 shows objects 203 in the form of segments and connectors. Any one of a number

of segment submaps 208 can be exploded from an object 203 within a network submap 206. Each segment submap 208 shows objects in the form of network nodes. Finally, any one of a number of node submaps 210 can be exploded from an object 203 within a segment submap 208. Each node submap 210 shows objects 203 in the form of interfaces within that node."

Thus the submaps in the map of Fig.2, can be "Exploded" (in the context of this document) "means that the user prompts the management station 100 with the input device 106 to break down and provide more data pertaining to the object 203 at issue; i.e. to the level of network segments and interfaces within any particular node.

Thus, Schettler teaches in col. 19-42, "receiving input associated with a level of abstraction" and "determining the level of abstraction based on the input."

Claim Rejections - 35 USC §02

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 , 2, 10, and 18-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Schettler et al. (US Patent 5,787,252, issued 7/28/1998, hereinafter Schettler).

5. As per claim 1, Schettler discloses a method for analyzing links between components of a computer system (col. 2, lines 20-27), comprising: receiving input

associated with a level of abstraction; determining the level of abstraction based on the input (col. 7, lines 19-35: user input describes filters based on level of detail specified); filtering network links for display based on the level of abstraction (col. 2, lines 35-40)., and displaying the filtered network links to present a layered network diagram (col. 2, lines 60-63).

6. As per claim 2, Schettler discloses the method of claim 1 , wherein the input is a user identification (col. 11, lines 30-33).

7. As per claim 10, Schettler discloses a method for network analysis by presenting a layered network diagram on a visualization workstation (Fig. 1 item 100., col. 2, lines 20-28), comprising: storing in an object repository (Fig. 3. item 314; col. 6, lines 39-45), at least one object representing a link between components of a network (col. 6, line 42: objects include network segment); receiving a request to present the network topology represented by the at least one object in the object repository (col. 5, lines 43-47); receiving input associated with a level of abstraction (col. 7, lines 19-35: user input describes filters based on level of detail specified); determining the level of abstraction based on the input (col. 7, lines 19-35: user input describes filters based on level of detail specified); filtering the at least one object based on the level of abstraction (Fig. b, item 103 filters objects from object database; and displaying the at least one filtered objects to present a layered network diagram (col. 2, lines 60-63).

8. As per claim 18, Schettler discloses an apparatus for analyzing links between components of a computer system (col. 2, lines 20-27), comprising: a processor 102; a memory connected to said processor storing a program to control the operation of said

processor 1 10 (Fig. 1)., the processor operative with the program in the memory to: receive input associated with a level of abstraction; determine the level of abstraction based on the input (col. 7, lines 19-35: user input describes filters based on level of detail specified); filter network links for display based on, the level of abstraction (col. 2, lines 35-40); and display the filtered network links to present a layered network diagram (col. 2, lines 60-63).

9. As per claim 19, Schettler discloses an apparatus for network analysis by presenting a layered network diagram on a visualization workstation (Fig. 1 item 100., col. 2, lines 20-28), comprising: a processor 102., a memory connected to said processor storing a program to control the operation of said processor 1 10 (Fig. 1); the processor operative with the program in the memory to: store in an object repository (Fig. 3. item 314,* col. 6, lines 39-45), at least one object representing a link between components of a network (col. 6, line 42: stored objects include network segment); receive a request to present the network topology represented by the at least one object in the object repository (col. 5, lines 43-47),. receive input associated with a level of abstraction; determine the level of abstraction based on the input (col. 7, lines 19-35: user input describes filters based on level of detail specified); filter the at least one object based on the level of abstraction (Fig. 3, item 103 filters objects from object databaset); and display the at least one filtered objects to present a layered network diagram (col. 2, lines 60-63).

10. As per claims 20 and 21, claims 20 and 21 are rejected for the same reasons as claims 18 and 19 respectively.

11. As per claims 22 and 23, claims 22 and 23 are describe a computer product storing instructions that direct a computer to carry out the method in claims 1 and 10 respectively. Claims 22 and 23 are rejected for the same reasons as claims 1 and 10.

Claim Rejections - 35 USC §103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 4, 5, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schettler et al. (US Patent 5,787,252, hereinafter Schettler) further in view of Ball et al. (US Published Application 2003/0046390) hereinafter Ball.

14. As per claims 4 and 5, Schettler fails to explicitly teach the method of claim 1, wherein each displayed network link represents a layer of an industry standard stack selected from the group consisting of the layers of an Open System Interconnection (OSI) protocol stack.

Ball teaches displaying network links representing layers of an industry standard stack selected from the network and data link layers of the OSI protocol stack (Paragraphs 0041, 0067, and 0073: Fig. 2A).

It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Schettler and Ball because they both deal with displaying links between components of a computer system. Furthermore, the teaching of Ball to modify the to the network link analyzer taught by Schettler so that displayed network links represent layers of an industry standard stack would increase the usefulness of the network display as an analysis and troubleshooting tool by providing a visual representation of the interdependencies among network layers (See Ball, paragraph 0044 and 0046).

15. As per claims 12 and 13, Schettler fails to explicitly teach the method of claim 10, wherein the displayed objects represent a layers of an industry standard stack selected from the group consisting of the layers of an Open System Interconnection (OSI) protocol stack.

Ball teaches displaying network links representing layers of an industry standard stack selected from the network and data link layers of the OSI protocol stack (Paragraphs 0041, 0067, and 0073; Fig. 2A).

It would have been obvious to one of ordinary skill in this ad at the time the invention was made to combine the teaching of Schettler and Ball because they both deal with displaying links between components of a computer system. Furthermore, the teaching of Ball to modify the to the network link analyzer taught by Schettler so that displayed objects represent layers of an industry standard stack would increase the usefulness of the network display as an analysis and troubleshooting tool by providing a

visual representation of the interdependencies among network layers (See Ball, paragraph 0044 and 0046).

16. Claims 3, 6-8, 11, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schettler et al. (US Patent 5,787,252, hereinafter Schettler) further in view of Tams et al. (US Published Application 2003/0069952, hereinafter Tams).

17. As per claim 3, Schettler fails to explicitly teach the method of claim 1, wherein the level of abstraction represents at least one protocol.

Tams teaches Tams teaches monitoring network data objects based on the protocol of the packet, the protocols being IP, TCP, FTP and HUP (Paragraph (0150) and Table 1) and turning off monitoring for non selected protocols (Paragraph 0158: turning of UDP monitoring).

It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Schettler and Tams because they both deal with monitoring and analyzing links in a network using SNMP. Furthermore, the teaching of Tams to limit the level of abstraction to at least one protocol allows the user to reduce the display clutter due to information not of interest while allowing a detailed presentation of the protocols of interest thus increasing the utility of the display for diagnosing the network (See Tams, Paragraph 0071 and 0082).

18. As per claim 6 and 7, Schettler fails to explicitly teach the method of claim 1 where each network link represents a protocol selected from the group consisting of Internet Protocol (IP), Transmission Control Protocol (TCP), File Transfer Protocol (FTP) and Hypertext Transfer Protocol (HUP).

Tams teaches monitoring network data objects based on the protocol of the packet, the protocols being IP, TCP, FTP and HUP (Paragraph (0150) and Table 1) and turning off monitoring for non selected protocols (Paragraph 0158).

It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Schettler and Tams because they both deal with monitoring and analyzing links in a network using SNMP. Furthermore, the teaching of Tams to modify the network analyzing method taught by Schettler to have each network link represent a protocol selected from the group consisting of Internet Protocol (IP), Transmission Control Protocol (TCP), File Transfer Protocol (FTP) and Hypertext Transfer Protocol (HTTP) allows the user to reduce the display of information not of interest while allowing a detailed presentation of the protocols of interest thus increasing the utility of the display for diagnosing the network (See Tams, Paragraph 0071 and 0082).

19. As per claim 8, Schettler fails to explicitly teach the method of claim 1, wherein filtering includes identifying any network link that represents a relevant propagated failure regardless of the level of abstraction.

Tams teaches identifying network link failures by processing multiple protocol layers regardless of which layers are currently being displayed (Paragraph 150).

It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Schettler and Tams to identify a relevant propagated failure regardless of the level of abstraction because they both deal with monitoring and analyzing links in a network using SNMP. Furthermore, the

teaching of Tams to modify the network analyzer taught by Schettler to identify failures regardless of the selected level of abstraction would increase the usefulness of the display to identify faults by not hiding them when a layer is not chosen for display.

20. As per claim 11, Schettler fails to explicitly teach the method of claim 10, wherein the level of abstraction limits the presentation to at least one protocol.

Tams teaches Tams teaches monitoring network data objects based on the protocol of the packet, the protocols being IP, TCP, FTP and HUP (Paragraph (0150) and Table 1) and turning off monitoring for non selected protocols (Paragraph 0158: turning of UDP monitoring).

It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Schettler and Tams because they both deal with monitoring and analyzing links in a network using SNMP. Furthermore, the teaching of Tams to limit the level of abstraction to at least one protocol allows the user to reduce the display clutter due to information not of interest while allowing a detailed presentation of the protocols of interest thus increasing the utility of the display for diagnosing the network (See Tams, Paragraph 0071 and 0082).

21. As per claim 14 and 15, Schettler fails to explicitly teach the method of claim 10, wherein each displayed object represents a protocol, wherein the protocol is selected from the group consisting of Internet Protocol (IP), Transmission Control Protocol (TCP), File Transfer Protocol (FTP) and Hypertext Transfer Protocol (HUP).

Tams teaches monitoring network data objects based on the protocol of the packet, the protocols being IP, TCP, FTP and HUP (Paragraph (0150) and Table 1) and turning off monitoring for non selected protocols (Paragraph 0158).

It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Schettler and Tams because they both deal with monitoring and analyzing links in a network using SNMP. Furthermore, the teaching of Tams to modify the network analyzing method taught by Schettler to have each displayed object represent a protocol selected from the group consisting of Internet Protocol (IP), Transmission Control Protocol (TCP), File Transfer Protocol (FTP) and Hypertext Transfer Protocol (HTTP) allows the user to reduce the display of information not of interest while allowing a detailed presentation of the protocols of interest thus increasing the utility of the display for diagnosing the network (See Tams, Paragraph 0071 and 0082).

22. As per claim 16, Schettler fails to explicitly teach the method of claim 10, wherein filtering includes identifying any object that represents a relevant propagated failure regardless of the level of abstraction.

Tams teaches identifying network link failures by processing multiple protocol layers regardless of which layers are currently being displayed (Paragraph 150).

It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Schettler and Tams to identify a relevant propagated failure regardless of the level of abstraction because they both deal with monitoring and analyzing links in a network using SNMP. Furthermore, the

teaching of Tams to modify the network analyzer taught by Schettler to identify objects representing failures regardless of the selected level of abstraction would increase the usefulness of the display to identify faults by not hiding them when a layer is not chosen for display.

23. Claims 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schettler et al. (US Patent 5,787,252 hereinafter Schettler) in view of Miyake et al. (US Patent 6,732,170, hereinafter Miyake).

24. As per claim 9, Schettler fails to explicitly teach the method of claim 1, wherein displaying includes displaying a three dimensional representation of the link.

Miyake teaches providing a three dimensional representation of the links in a physical network (Abstract; Fig, 14, col. 13, lines 1-10).

It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Schettler and Miyake because they both deal with a display for analyzing network entities. Furthermore, the teaching of Miyake to modify the network analyzer taught by Schettler to displaying a three dimensional representation of the link would increase the usefulness of the display by visually showing the relationships between the protocol layers of a connection in a compact diagram (See Miyake col. 13, lines 21-27).

25. As per claim 17, Schettler fails to explicitly teach the method of claim 10, wherein displaying includes displaying a three dimensional representation of the at least one object.

Miyake teaches providing a three dimensional representation of objects representing network topological entities (Abstract; Fig, 14, col. 13, lines 1-10).

It would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Schettler and Miyake because they both deal with a display for analyzing network entities. Furthermore, the teaching of Miyake to modify the network analyzer taught by Schettler to displaying a three dimensional representation of at least one object would increase the usefulness of the display by visually showing the relationships between the protocol layers of a connection in a compact diagram (See Miyake col. 13, lines 21-27).

Conclusion

Examiner's note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashok B. Patel whose telephone number is (571) 272-3972. The examiner can normally be reached on 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A. Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abp
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